WO 2004/114306

13

CLAIMS:

- 1. Device for recording information in blocks having logical addresses on a record carrier, which device comprises
- recording means (22) for recording marks in a track on the record carrier representing the information,
- control means (20) for controlling the recording by locating each block at a physical address
 in the track, physical addresses in first parts of the track being assigned to at least one user
 data area and physical addresses in second parts of the track being assigned to defect
 management areas, the control means comprising
- addressing means (31) for translating the logical addresses into the physical addresses and vice versa in dependence of defect management information,
 - defect management means (32) for detecting defects and maintaining the defect management information in the defect management areas, the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area, and
 - contiguous recording means (33)

15

- for recording a series of blocks having a continuous logical address range in a corresponding allocated physical address range, in particular digitally encoded video,
- for detecting if the allocated physical address range is interrupted by a subset of physical addresses assigned to a defect management area,
- for reallocating the subset of physical addresses to the user data area, and
- for contiguously recording the series of blocks extending over the subset of physical addresses.
- 25 2. Device as claimed in claim 1, wherein the contiguous recording means (33) are for reallocating said interrupting defect management area to different physical addresses and updating the defect management information correspondingly.

3. Device as claimed in claim 1, wherein the contiguous recording means (33) are for detecting blocks previously remapped to the subset of physical addresses, and, in the event of detecting previously remapped blocks, for remapping the previously remapped blocks.

5

25

- 4. Device as claimed in claim 3, wherein the device comprises a memory (34) and the contiguous recording means (33) are for, during contiguous recording,
- storing in the memory blocks from the series of blocks corresponding to the previously remapped blocks until after said remapping, or
- reading the previously remapped blocks into the memory and continue recording the series
 of blocks extending over the subset, or
 - reading the previously remapped blocks, writing them on a free area of the disc and continue recording the series of blocks extending over the subset.
- 5. Device as claimed in claim 1, wherein the contiguous recording means (33) are for at least partly removing said interrupting defect management area from the defect management areas.
- Device as claimed in claim 5, wherein the contiguous recording means (33)
 are for adapting defect management status information indicating that the interrupting defect management area is unusable or adapting pointer information or size information indicating the location or size of the interrupting defect management area.
 - 7. Device as claimed in claim 1, wherein the contiguous recording means (33) are for detecting a defect physical address interrupting the allocated physical address range, and creating a defect management area extending over the defect by reassigning the defect physical address to the defect management areas.
- 8. Device as claimed in claim 1, wherein the contiguous recording means (33)
 30 are for contiguously recording a previously recorded series of blocks, in particular in a background process.
 - 9. Method of recording information in blocks having logical addresses located at physical addresses in a track on a record carrier,

WO 2004/114306 PCT/IB2004/050930

15

- the logical addresses corresponding to the physical addresses in dependence of defect management information,
- physical addresses in first parts of the track being assigned to at least one user data area and physical addresses in second parts of the track being assigned to defect management areas,
- defects being detected and the defect management information being maintained in the defect management areas, and
 - the defect management information at least including remapping information indicative for translating a logical address initially mapped to a physical address exhibiting a defect to an alternate physical address in a defect management area,
- a series of blocks having a continuous logical address range, in particular digitally encoded video, corresponding to an allocated physical address range,
 the method comprising
 - detecting if the allocated physical address range is interrupted by a subset of physical addresses assigned to a defect management area,
- reallocating the subset of physical addresses to the user data area, and
 - contiguously recording the series of blocks extending over the subset of physical addresses.
 - 10. Computer program product for recording information, which program is operative to cause a processor to perform the method as claimed in claim 9.